

Glu-Plasminogen (Human)

1.00 mg

Ref#: HPGG

Lot#: xxxxxx

Exp. Date: xxxx-xx



Store at +2 to +8°C

For Research Use Only

Not for Use in Diagnostic Procedures

For *in vitro* Use Only

Description:	Glu-Plasminogen (Human)
Format:	Lyophilized in 50 mM Tris-HCl / 0.1 M NaCl / pH 7.3
Host:	Human
Storage:	Store between +2 and +8°C After reconstitution aliquot and freeze at ≤-60°C
Reconstitution:	We recommend hydrating the protein with sterile water to the original volume
Volume:	1 vial containing 0.412 mL
Total Protein:	1.00 mg
Concentration:	2.43 mg/mL before lyophilisation by Absorbance; Extinction Coefficient $E^{1\%}_{280} = 17.0$
Activity:	20.90 Casein Units (CU)/mg
Molecular weight:	90,000 daltons

Plasminogen is synthesized in the liver and circulates in plasma at a concentration of ~200 µg/mL (~2.3 µM). Plasminogen is a single-chain glycoprotein of ~88 kDa that consists of a catalytic domain followed by five kringle structures. Within these kringle structures are four low-affinity lysine binding sites and one high-affinity lysine binding site. It is through these lysine binding sites that plasminogen binds to fibrin and to α2-Antiplasmin. Native Plasminogen (Glu-Plasminogen) exists in two variants that differ in their extent of glycosylation, and each variant has up to six isoelectric forms with respect to sialic acid content, for a total of 12 molecular forms.

Activation of Glu-Plasminogen by the Plasminogen activators Urokinase (uPA), or tissue Plasminogen Activator (tPA) occurs by cleavage after residue Arg560 to produce the two-chain active serine protease Plasmin. In a positive feedback reaction, the Plasmin generated cleaves an ~8 kDa peptide from Glu-Plasminogen, producing lys77-Plasminogen which has a higher affinity for Fibrin and when bound is a preferred substrate for Plasminogen activators such as Urokinase. Additional activators of Plasminogen include Kallikrein and activated Factor XII.

The Glu-Plasminogen purity is determined by SDS-PAGE and shows no reduction upon incubation with 2-Mercaptoethanol. No Plasmin activity is detected using the chromogenic substrate S-2251.

The above protein was purified from Human plasma that was tested and found negative by FDA accepted methods for Anti-HIV 1/2, Anti-HTLV I & II, HBsAg, Anti-HCV, Syphilis, HBC Ab, HIV-1 p24 Ag or HIV-1 RNA, HCV RNA and HBV RNA. Donors are screened for CJD (Creutzfeld-Jakob Disease).